5' GCGXnGCG 3'

wherein X is a nucleotide and n is 0-50, in an effective amount to treat the viral infection.

46. The method of claim 42, wherein the CpG oligonucleotide is stabilized.

47. The method of claim 46, wherein the CpG oligonucleotide has a phosphate modified backbone.

48. The method of claim 47, wherein at least one of the nucleotides of the CpG oligonucleotide has a phosphorothioate backbone.

49. The method of claim 46, wherein the CpG oligonucleotide is a stabilized oligonucleotide selected from the group consisting of nonionic DNA analogs, such as alkyl- and aryl-phosphonates, alkylphosphotriesters in which the charged oxygen moiety is alkylated, and oligonucleotides containing a diol, such as tetraethyleneglycol and hexaethyleneglycol.

50. The method of claim 42, wherein the CpG oligonucleotide is a synthetic oligonucleotide.

51. The method of claim 42, wherein the CpG oligonucleotide is derived from existing nucleic acid sources.

52. The method of claim 42, wherein the CpG oligonucleotide has less than 100 nucleotides.

53. The method of claim 42, wherein the CpG oligonucleotide comprises the formula:

5' $X_1X_2CGX_3X_4$ 3'

wherein the C is unmethylated and wherein X_1, X_2, X_3 and X_4 are nucleotides.

54. The method of claim 53, wherein the formula is preceded on the 5' end by a T.

55. The method of claim 42, wherein the CpG oligonucleotide is administered by a route selected from the group consisting of oral, transdermal, injection, intravenous, parenteral, intraperitoneal, and intrathecal.

56. The method of claim 42, wherein the CpG oligonucleotide is administered with an oligonucleotide delivery complex.

57. The method of claim 56, wherein the oligonucleotide delivery complex is selected from the group consisting of a sterol, a cholesterol, a lipid, a cationic lipid, a virosome, and a liposome.

58. The method of claim 42, wherein the CpG oligonucleotide does not include a palindrome of 6 nucleotides or longer.

59. The method of claim 42, wherein the viral infection is caused by a *Retroviridae.*

60. The method of claim 59, wherein the *Retroviridae* is a human immunodeficiency virus.

61. The method of claim 42, wherein the viral infection is caused by a *Picornaviridae.*

62. The method of claim 61, wherein the *Picornaviridae* is a virus selected from the group consisting of polio virus, hepatitis A virus; enterovirus, human coxsackie virus, and rhinovirus, echovirus.

63. The method of claim 42, wherein the viral infection is caused by a *Togaviridae.*

64. The method of claim 63, wherein the *Togaviridae* is a virus selected from the group consisting of equine encephalitis viruses, and rubella virus.

65. The method of claim 42, wherein the viral infection is caused by a *Flaviridae.*

66. The method of claim 65, wherein the *Flaviridae* is a virus selected from the group consisting of dengue viruses, encephalitis viruses, and yellow fever virus.

67. The method of claim 42, wherein the viral infection is caused by a *Rhabdoviridae.*

68. The method of claim 67, wherein the *Rhabdoviridae* is a virus selected from the group consisting of vesicular stomatitis viruses, and rabies viruses.

69. The method of claim 42, wherein the viral infection is caused by a *Filoviridae.*

70. The method of claim 69, wherein the *Filoviridae* is an ebola viruses.

71. The method of claim 69, wherein the viral infection is caused by a *Paramyxoviridae.*

72. The method of claim 71, wherein the *Paramyxoviridae* is a virus selected from the group consisting of parainfluenza viruses, mumps virus, measles virus, and respiratory syncytial virus.

73. The method of claim 42, wherein the viral infection is caused by a *Orthomyxoviridae.*

74. The method of claim 73, wherein the *Orthomyxoviridae* is an influenza virus.

75. The method of claim 42, wherein the viral infection is caused by a *Reoviridae.*

76. The method of claim 75, wherein the *Reoviridae* is a virus selected from the group consisting of reoviruses, orbiviurses and rotaviruses.

77. The method of claim 42, wherein the viral infection is caused by a *Hepadnaviridae.*

78. The method of claim 77, wherein the *Hepadnaviridae* is a Hepatitis B virus.

79. The method of claim 42, wherein the viral infection is caused by a *Parvoviridae.*

80. The method of claim 79, wherein the *Parvoviridae* is a parvovirus..

81. The method of claim 42, wherein the viral infection is caused by a *Adenoviridae.*

82. The method of claim 81, wherein the *Adenoviridae* is a adenovirus.

83. The method of claim 42, wherein the viral infection is caused by a *Herpesviridae.*

84. The method of claim 83, wherein the *Herpesviridae* is a virus selected from the group consisting of herpes simplex virus 1 and 2, varicella zoster virus, and cytomegalovirus.

85. The method of claim 42, wherein the viral infection is caused by a *Poxviridae.*

86. The method of claim 85, wherein the *Poxviridae* is a virus selected from the group consisting of variola viruses, vaccinia viruses, and pox viruses.

87. The method of claim 86, wherein the viral infection is caused by a virus selected from the group consisting of the etiological agents of Spongiform encephalopathies, the agent of delta hepatities, the agents of non-A, non-B hepatitis, Hepatitis C; Norwalk and related viruses, and astroviruses.

88. A method for preventing a bacterial infection in a subject, comprising:

administering to a subject in need thereof a CpG oligonucleotide in an effective amount to prevent the bacterial infection.

89. The method of claim 88, wherein the CpG oligonucleotide is stabilized.

90. The method of claim 88, wherein the CpG oligonucleotide has a phosphodiester backbone.

91. The method of claim 89, wherein the CpG oligonucleotide has a phosphate modified backbone.

92. The method of claim 91, wherein at least one of the nucleotides of the CpG oligonucleotide has a phosphorothioate backbone.

93. The method of claim 89, wherein the CpG oligonucleotide is a stabilized oligonucleotide selected from the group consisting of nonionic DNA analogs, such as alkyl- and aryl-phosphonates, alkylphosphotriesters in which the charged oxygen moiety is alkylated, and oligonucleotides containing a diol, such as tetraethyleneglycol and hexaethyleneglycol.

94. The method of claim 88, wherein the CpG oligonucleotide is a synthetic oligonucleotide.

95. The method of claim 88, wherein the CpG oligonucleotide is derived from existing nucleic acid sources.

96. The method of claim 88, wherein the CpG oligonucleotide has less than 100 nucleotides.

97. The method of claim 88, wherein the CpG oligonucleotide comprises the formula:

$$5' X_1X_2CGX_3X_4\ 3'$$

wherein the C is unmethylated and wherein X_1, X_2, X_3 and X_4 are nucleotides.

98. The method of claim 97, wherein the formula is preceded on the 5' end by a T.

99. The method of claim 88, wherein the CpG oligonucleotide is administered by a route selected from the group consisting of oral, transdermal, injection, intravenous, parenteral, intraperitoneal, and intrathecal.

100. The method of claim 88, wherein the CpG oligonucleotide is administered with an oligonucleotide delivery complex.

101. The method of claim 100, wherein the oligonucleotide delivery complex is selected from the group consisting of a sterol, a cholesterol, a lipid, a cationic lipid, a virosome, and a liposome.

102. The method of claim 88, wherein the CpG oligonucleotide does not include a palindrome of 6 nucleotides or longer.

103. The method of claim 88, wherein the bacterial infection is caused by a bacteria selected from the group consisting of *Helicobacter pyloris, Borelia burgdorferi, Legionella pneumophilia, Mycobacteria, Staphylococcus aureus, Neisseria gonorrhoeae, Neisseria meningitidis, Listeria monocytogenes, Streptococcus pyogenes, Streptococcus agalactiae, Streptococcus* (viridans group), *Streptococcus faecalis, Streptobacillus moniliformis, Streptococcus* (anaerobic sps.), *Streptococcus pneumoniae*, *Streptococcus bovi, Campylobacter sp, Enterococcus sp, Haemophilus influenzae, corynebacterium diphtheriae, Erysipelothrix rhusiopathiae*, *Bacillus antracis*, *Clostridium, Enterobacter aerogenes*, *Klebsiella pneumoniae*, *Pasturella multocida*, *Bacteroides sp*, *Fusobacterium nucleatum*, *Treponema pallidium*, *Treponema pertenue*, *Leptospira*, and *Actinomyces israelli.*

104. A method for treating a bacterial infection in a subject, comprising:
administering to a subject in need thereof a CpG oligonucleotide in an effective amount to treat the bacterial infection, wherein the CpG oligonucleotide is stabilized.

105. A method for treating a bacterial infection in a subject, comprising:

administering to a subject in need thereof a CpG oligonucleotide in an effective amount to treat the bacterial infection, wherein the CpG oligonucleotide does not include a palindrome of 6 nucleotides or longer.

106. The method of claim 105, wherein the CpG oligonucleotide is administered by a route selected from the group consisting of oral, transdermal, injection, intravenous, parenteral, intraperitoneal, and intrathecal.

107. The method of claim 105, wherein the CpG oligonucleotide is administered with an oligonucleotide delivery complex.

108. The method of claim 107, wherein the oligonucleotide delivery complex is selected from the group consisting of a sterol, a cholesterol, a lipid, a cationic lipid, a virosome, and a liposome.

109. The method of claim 105, wherein the CpG oligonucleotide does not include a palindrome of 6 nucleotides or longer.

110. The method of claim 105, wherein the bacterial infection is caused by a bacteria selected from the group consisting of *Helicobacter pyloris, Borelia burgdorferi, Legionella pneumophilia, Mycobacteria, Staphylococcus aureus, Neisseria gonorrhoeae, Neisseria meningitidis, Listeria monocytogenes, Streptococcus pyogenes, Streptococcus agalactiae, Streptococcus* (viridans group), *Streptococcus faecalis, Streptobacillus moniliformis, Streptococcus* (anaerobic sps.), *Streptococcus pneumoniae*, *Streptococcus bovi, Campylobacter sp, Enterococcus sp, Haemophilus influenzae, corynebacterium diphtheriae, Erysipelothrix rhusiopathiae*, *Bacillus antracis*, *Clostridium, Enterobacter aerogenes*, *Klebsiella pneumoniae*, *Pasturella multocida*, *Bacteroides sp*, *Fusobacterium nucleatum*, *Treponema pallidium*, *Treponema pertenue*, *Leptospira*, and *Actinomyces israelli.*

111. A method for preventing or treating a fungal infection in a subject, comprising:

administering to a subject in need thereof a CpG oligonucleotide in an effective amount to prevent or treat the fungal infection.

112. The method of claim 111, wherein the CpG oligonucleotide is stabilized.

113. The method of claim 111, wherein the CpG oligonucleotide has a phosphodiester backbone.

114. The method of claim 112, wherein the CpG oligonucleotide has a phosphate modified backbone.

115. The method of claim 113, wherein at least one of the nucleotides of the CpG oligonucleotide has a phosphorothioate backbone.

116. The method of claim 112, wherein the CpG oligonucleotide is a stabilized oligonucleotide selected from the group consisting of nonionic DNA analogs, such as alkyl- and aryl-phosphonates, alkylphosphotriesters in which the charged oxygen moiety is alkylated, and oligonucleotides containing a diol, such as tetraethyleneglycol and hexaethyleneglycol.

117. The method of claim 111, wherein the CpG oligonucleotide is a synthetic oligonucleotide.

118. The method of claim 111, wherein the CpG oligonucleotide is derived from existing nucleic acid sources.

119. The method of claim 111, wherein the CpG oligonucleotide has less than 100 nucleotides.

120. The method of claim 111, wherein the CpG oligonucleotide comprises the formula:

$$5' X_1X_2CGX_3X_4 3'$$

wherein the C is unmethylated and wherein X_1, X_2, X_3 and X_4 are nucleotides.

121. The method of claim 120, wherein the formula is preceded on the 5' end by a T.

122. The method of claim 111, wherein the CpG oligonucleotide is administered by a route selected from the group consisting of oral, transdermal, injection, intravenous, parenteral, intraperitoneal, and intrathecal.

123. The method of claim 111, wherein the CpG oligonucleotide is administered with an oligonucleotide delivery complex.

124. The method of claim 123, wherein the oligonucleotide delivery complex is selected from the group consisting of a sterol, a cholesterol, a lipid, a cationic lipid, a virosome, and a liposome.

125. The method of claim 111, wherein the CpG oligonucleotide does not include a palindrome of 6 nucleotides or longer.

126. The method of claim 111, wherein the fungal infection is caused by *Cryptococcus neoformans.*

127. The method of claim 111, wherein the fungal infection is caused by *Histoplasma capsulatum*

128. The method of claim 111, wherein the fungal infection is caused by *Coccidioides immitis*

129. The method of claim 111, wherein the fungal infection is caused by *Blastomyces dermatitidis*

130. The method of claim 111, wherein the fungal infection is caused by *Chlamydia trachomatis*